

FIGURE 1

gag 1	cct Pro	ctg Leu	gat Asp	gac Asp 5	tat Tyr	gtg Val	aat Asn	acc Thr	cag Gln 10	ggg Gly	gct Ala	tca Ser	ctg Leu	ttc Phe 15	agt Ser	48
gtc Val	act Thr	aag Lys	aag Lys 20	cag Gln	ctg Leu	gga Gly	gca Ala	gga Gly 25	agt Ser	ata Ile	gaa Glu	gaa Glu	tgt Cys 30	gca Ala	gca Ala	96
aaa Lys	tgt Cys	gag Glu	gag Glu	gac Asp	gaa Glu	gaa Glu	ttc Phe 40	acc Thr	tgc Cys	agg Arg	gca Ala	ttc Phe 45	caa Gln	tat Tyr	cac His	144
agt Ser	aaa Lys 50	gag Glu	caa Gln	caa Gln	tgt Cys	gtg Val 55	ata Ile	atg Met	gtc Ala	gaa Glu	aac Asn 60	agg Arg	aag Lys	tcc Ser	tcc Ser	192
ata Ile 65	atc Ile	att Ile	agg Arg	atg Met	aga Arg 70	gat Asp	gta Val	gtt Val	tta Leu	ttt Phe 75	gaa Glu	aag Lys	aaa Lys	gtg Val	tat Tyr 80	240
ctc Leu	tca Ser	gag Glu	tgc Cys	aag Lys 85	act Thr	ggg Gly	aat Asn	gga Gly	aag Lys 90	aac Asn	tac Tyr	aga Arg	ggg Gly	acg Thr 95	atg Met	288
tcc Ser	aaa Lys	aca Thr	aaa Lys 100	aat Asn	ggc Gly	atc Ile	acc Thr	tgt Cys 105	caa Gln	aaa Lys	tgg Trp	agt Ser	tcc Ser 110	act Thr	tct Ser	336
ccc Pro	cac His	aga Arg 115	cct Pro	aga Arg	ttc Phe	tca Ser	cct Pro 120	gct Ala	aca Thr	cac His	ccc Pro	tca Ser 125	gag Glu	gga Gly	ctg Leu	384
gag Glu	gag Glu 130	aac Asn	tac Tyr	tgc Cys	agg Arg	aat Asn 135	cca Pro	gac Asp	aac Asn	gat Asp	ccg Pro 140	cag Gln	ggg Gly	ccc Pro	tgg Trp	432
tgc Cys 145	tat Tyr	act Thr	act Thr	gat Asp	cca Pro 150	gaa Glu	aag Lys	aga Arg	tat Tyr	gac Asp 155	tac Tyr	tgc Cys	gac Asp	att Ile	ctt Leu 160	480
gag Glu	tgt Cys	gaa Glu	gag Glu	gaa Glu 165	tgt Cys	atg Met	cat His	tgc Cys	agt Ser 170	gga Gly	gaa Glu	aac Asn	tat Tyr	gac Asp 175	ggc Gly	528
aaa Lys	att Ile	tcc Ser	aag Lys 180	acc Thr	atg Met	tct Ser	gga Gly	ctg Leu 185	gaa Glu	tgc Cys	cag Gln	gcc Ala	tgg Trp 190	gac Asp	tct Ser	576
cag Gln	agc Ser	cca Pro 195	cac His	gct Ala	cat His	gga Gly	tac Tyr 200	att Ile	cct Pro	tcc Ser	aaa Lys	ttt Phe 205	cca Pro	aac Asn	aag Lys	624

**FIGURE 1 continued**

aac	ctg	aag	aag	aat	tac	tgt	cgt	aac	ccc	gat	agg	gag	ctg	cgg	cct	672
Asn	Leu	Lys	Lys	Asn	Tyr	Cys	Arg	Asn	Pro	Asp	Arg	Glu	Leu	Arg	Pro	
	210				215						220					
tgg	tgt	ttc	acc	acc	gac	ccc	aac	aag	cgc	tgg	gaa	ctt	tgc	gac	atc	720
Trp	Cys	Phe	Thr	Thr	Asp	Pro	Asn	Lys	Arg	Trp	Glu	Leu	Cys	Asp	Ile	
225					230					235					240	
ccc	cgc	tgc	aca	aca	cct	cca	cca	tct	tct	ggt	ccc	acc	tac	cag	tgt	768
Pro	Arg	Cys	Thr	Thr	Pro	Pro	Pro	Ser	Ser	Gly	Pro	Thr	Tyr	Gln	Cys	
				245					250					255		
ctg	aag	gga	aca	ggt	gaa	aac	tat	cgc	ggg	aat	gtg	gtt	acc	gtt	816	
Leu	Lys	Gly	Thr	Gly	Glu	Asn	Tyr	Arg	Gly	Asn	Val	Val	Thr	Val		
				260				265			270					
tcc	ggg	cac	acc	tgt	cag	cac	tgg	agt	gca	cag	acc	cct	cac	aca	cat	864
Ser	Gly	His	Thr	Cys	Gln	His	Trp	Ser	Ala	Gln	Thr	Pro	His	Thr	His	
	275						280				285					
aac	agg	aca	cca	gaa	aac	ttc	ccc	tgc	aaa	aat	ttg	gat	gaa	aac	tac	912
Asn	Arg	Thr	Pro	Glu	Asn	Phe	Pro	Cys	Lys	Asn	Leu	Asp	Glu	Asn	Tyr	
	290					295					300					
tgc	cgc	aat	cct	gac	gga	aaa	agg	gcc	cca	tgg	tgc	cat	aca	acc	aac	960
Cys	Arg	Asn	Pro	Asp	Gly	Lys	Arg	Ala	Pro	Trp	Cys	His	Thr	Thr	Asn	
305					310					315					320	
agc	caa	gtg	cgg	tgg	gag	tac	tgt	aag	ata	ccg	tcc	tgt	gac	tcc	tcc	1008
Ser	Gln	Val	Arg	Trp	Glu	Tyr	Cys	Lys	Ile	Pro	Ser	Cys	Asp	Ser	Ser	
				325					330							
cca	gta	tcc	acg	gaa	caa	ttg	gct	ccc	aca	gca	cca	cct	gag	cta	acc	1056
Pro	Val	Ser	Thr	Glu	Gln	Leu	Ala	Pro	Thr	Ala	Pro	Pro	Glu	Leu	Thr	
								345					350			
cct	gtg	gtc	cag	gac	tgc	tac	cat	ggt	gat	gga	cag	agc	tac	cga	ggc	1104
Pro	Val	Val	Gln	Asp	Cys	Tyr	His	Gly	Asp	Gly	Gln	Ser	Tyr	Arg	Gly	
		355					360					365				
aca	tcc	tcc	acc	acc	aca	aca	gga	aag	aag	tgt	cag	tct	tgg	tca	tct	1152
Thr	Ser	Ser	Thr	Thr	Thr	Thr	Gly	Lys	Lys	Cys	Gln	Ser	Trp	Ser	Ser	
	370					375					380					
atg	aca	cca	cac	cgg	cac	cag	aag	acc	cca	gaa	aac	tac	cca	aat	gct	1200
Met	Thr	Pro	His	Arg	His	Gln	Lys	Thr	Pro	Glu	Asn	Tyr	Pro	Asn	Ala	
385					390					395					400	
ggc	ctg	aca	atg	aac	tac	tgc	agg	aat	cca	gat	gcc	gat	aaa	ggc	ccc	1248
Gly	Leu	Thr	Met	Asn	Tyr	Cys	Arg	Asn	Pro	Asp	Ala	Asp	Lys	Gly	Pro	
				405					410					415		
tgg	tgt	ttt	acc	aca	gac	ccc	agg	aat	Pro	Asp	Ala	Glu	Tyr	tgc	ctg	1296
Trp	Cys	Phe	Thr	Thr	Asp	Pro	Arg	Asn	410					Asn	Leu	
				420						425						

FIGURE 1 continued

aaa Lys	aaa Lys	tgc Cys 435	tca Ser	gga Gly	aca Thr	gaa Glu	gcg Ala 440	agt Ser	gtt Val	gta Val	gca Ala	cct Pro 445	ccg Pro	cct Pro	gtt Val	1344
gtc Val	ctg Leu 450	ctt Leu	cca Pro	gat Asp	gta Val	gag Glu 455	act Thr	cct Pro	tcc Ser	gaa Glu	gaa Glu 460	gac Asp	tgt Cys	atg Met	ttt Phe	1392
ggg Gly 465	aat Asn	ggg Gly	aaa Lys	gga Gly	tac Tyr 470	cga Arg	ggc Gly	aag Lys	agg Arg	gcg Ala 475	acc Thr	act Thr	gtt Val	act Thr	ggg Gly 480	1440
acg Thr	cca Pro	tgc Cys	cag Gln	gac Asp 485	tgg Trp	gct Ala	gcc Ala	cag Gln	gag Glu 490	ccc Pro	cat His	aga Arg	cac His	agc Ser 495	att Ile	1488
ttc Phe	act Thr	cca Pro	gag Glu 500	aca Thr	aat Asn	cca Pro	cgg Arg	gcg Ala 505	ggt Gly	ctg Leu	gaa Glu	aaa Lys	aat Asn 510	tac Tyr	tgc Cys	1536
cgt Arg	aac Asn	cct Pro 515	gat Asp	ggt Gly	gat Asp	gta Val	ggt Gly 520	ggt Gly	ccc Pro	tgg Trp	tgc Cys	tac Tyr 525	acg Thr	aca Thr	aat Asn	1584
cca Pro	aga Arg 530	aaa Lys	ctt Leu	tac Tyr	gac Asp	tac Tyr 535	tgt Cys	gat Asp	gtc Val	cct Pro	cag Gln 540	tgt Cys	gcg Ala	gcc Ala	cct Pro	1632
tca Ser 545	ttt Phe	gat Asp	tgt Cys	ggg Gly	aag Lys 550	cct Pro	caa Gln	gtg Val	gag Glu	ccg Pro 555	aag Lys	aaa Lys	tgt Cys	cct Pro	gga Gly 560	1680
agg Arg	gtt Val	gtg Val	ggg Gly	ggg Gly 565	tgt Cys	gtg Val	gcc Ala	cac His	cca Pro 570	cat His	tcc Ser	tgg Trp	ccc Pro	tgg Trp 575	caa Gln	1728
gtc Val	agt Ser	ctt Leu	aga Arg 580	aca Thr	agg Arg	ttt Phe	gga Gly	atg Met 585	cac His	ttc Phe	tgt Cys	gga Gly 590	acc Thr	ttg Leu	1776	
ata Ile	tcc Ser	cca Pro 595	gag Glu	tgg Trp	gtg Val	ttg Leu	act Thr 600	gct Ala	gcc Ala	cac His	tgc Cys	ttg Leu 605	gag Glu	aag Lys	tcc Ser	1824
cca Pro	agg Arg 610	cct Pro	tca Ser	tcc Ser	tac Tyr	aag Lys 615	gtc Val	atc Ile	ctg Leu	ggt Gly	gca Ala 620	cac His	caa Gln	gaa Glu	tgt Val	1872
aat Asn 625	ctc Leu	gaa Glu	ccg Pro	cat His	gtt Val 630	cag Gln	gaa Glu	ata Ile	gaa Glu	gtg Val 635	tct Ser	agg Arg	ctg Leu	ttc Phe	ttg Leu 640	1920
gag Glu	ccc Pro	aca Thr	cga Arg	aaa Lys 645	gat Asp	att Ile	gcc Ala	ttg Leu	ctt Leu 650	aag Lys	ctt Leu	agc Ser	agt Ser	cct Pro 655	gcc Ala	1968

**FIGURE 1 continued**

FIGURE 2

																		gcc Ala	cct Pro	1632
tca Ser 545	ttt Phe	gat Asp	tgt Cys	ggg Gly	aag Lys 550	cct Pro	caa Gln	gtg Val	gag Glu	ccg Pro 555	aag Lys	aaa Lys	tgt Cys	cct Pro	gga Gly 560					1680
agg Arg	gtt Val	gtg Val	ggg Gly	ggg Gly 565	tgt Cys	gtg Val	gcc Ala	cac His	cca Pro 570	cat His	tcc Ser	tgg Trp	ccc Pro	tgg Trp 575	caa Gln					1728
gtc Val	agt Ser	ctt Leu	aga Arg 580	aca Thr	agg Arg	ttt Phe	gga Gly	atg Met 585	cac His	tcc Phe	tgt Cys	gga Gly	ggc Gly 590	acc Thr	ttg Leu					1776
ata Ile	tcc Ser	cca Pro 595	gag Glu	tgg Trp	gtg Val	ttt Leu	act Thr 600	gct Ala	gcc Ala	cac His	tgc Cys	ttg Leu 605	gag Glu	aag Lys	tcc Ser					1824
cca Pro	agg Arg 610	cct Pro	tca Ser	tcc Ser	tac Tyr	aag Lys 615	gtc Val	atc Ile	ctg Leu	ggt Gly	gca Ala 620	cac His	caa Gln	gaa Glu	gtg Val					1872
aat Asn 625	ctc Leu	gaa Glu	ccg Pro	cat His	gtt Val 630	cag Gln	gaa Glu	ata Ile	gaa Glu	gtg Val 635	tct Ser	agg Arg	ctg Leu	ttc Phe	ttg Leu 640					1920
gag Glu	ccc Pro	aca Thr	cga Arg	aaa Lys 645	gat Asp	att Ile	gcc Ala	ttg Leu	cta Leu 650	aag Lys	cta Leu	agc Ser	agt Ser	cct Pro 655	gcc Ala					1968
gtc Val	atc Ile	act Thr	gac Asp 660	aaa Lys	gta Val	atc Ile	cca Pro	gct Ala 665	tgt Cys	ctg Leu	cca Pro	tcc Ser	cca Pro 670	aat Asn	tat Tyr					2016
gtg Val	gtc Val	gct Ala 675	gac Asp	cgg Arg	acc Thr	gaa Glu	tgt Cys 680	ttc Phe	atc Ile	act Thr	ggc Gly	tgg Trp 685	gga Gly	gaa Glu	acc Thr					2064
caa Gln	ggt Gly 690	act Thr	ttt Phe	gga Gly	gct Ala	ggc Gly 695	ctt Leu	ctc Leu	aag Lys	gaa Glu	gcc Ala 700	cag Gln	ctc Leu	cct Pro	gtg Val					2112
att Ile 705	gag Glu	aat Asn	aaa Lys	gtg Val	tgc Cys 710	aat Asn	cgc Arg	tat Tyr	gag Glu	ttt Phe 715	ctg Leu	aat Asn	gga Gly	aga Arg	gtc Val 720					2160
caa Gln	tcc Ser	acc Thr	gaa Glu	ctc Leu 725	tgt Cys	gct Ala	ggg Gly	cat His	ttg Leu 730	gcc Ala	gga Gly	ggc Gly	act Thr	gac Asp 735	agt Ser					2208

**FIGURE 2 continued**

FIGURE 3

																1344
																1392
gtc Val	ctg Leu 450	ctt Leu	cca Pro	gat Asp	gta Val	gag 455	act Thr	cct Pro	tcc Ser	gaa Glu 460	gac Asp	tgt Cys	atg Met	ttt Phe		1392
ggg Gly 465	aat Asn	ggg Gly	aaa	gga Lys	tac Tyr 470	cga Arg	ggc Gly	aag Lys	agg Arg	gcg Ala 475	acc Thr	act Thr	gtt Val	act Thr	ggg Gly 480	1440
acg Thr	cca Pro	tgc Cys	cag Gln	gac Asp 485	tgg Trp	gct Ala	gcc Ala	cag Gln	gag Glu 490	ccc Pro	cat His	aga Arg	cac His	agc Ser 495	att Ile	1488
ttc Phe	act Thr	cca Pro	gag Glu 500	aca Thr	aat Asn	cca Pro	cgg Arg	gcg Ala 505	ggt Gly	ctg Leu	gaa Glu	aaa Lys	aat Asn 510	tac Tyr	tgc Cys	1536
cgt Arg	aac Asn	cct Pro 515	gat Asp	ggt Gly	gat Asp	gta Val	ggt Gly 520	ggt Gly	ccc Pro	tgg Trp	tgc Cys	tac Tyr 525	acg Thr	aca Thr	aat Asn	1584
cca Pro	aga Arg 530	aaa	ctt Leu	tac Tyr	gac Asp	tac Tyr 535	tgt Cys	gat Asp	gtc Val	cct Pro	cag Gln 540	tgt Cys	gcg Ala	gcc Ala	cct Pro	1632
tca Ser 545	ttt Phe	gat Asp	tgt Cys	ggg Gly	aag Lys 550	cct Pro	caa Gln	gtg Val	gag Glu	ccg Pro 555	aag Lys	aaa Lys	tgt Cys	cct Pro	gga Gly 560	1680
agg Arg	gtt Val	gtg Val	ggg Gly	ggg Gly 565	tgt Cys	gtg Val	gcc Ala	cac His	cca Pro 570	cat His	tcc Ser	tgg Trp	ccc Pro	tgg Trp 575	caa Gln	1728
gtc Val	agt Ser	ctt Leu	aga Arg 580	aca Thr	agg Arg	ttt Phe	gga Gly	atg Met 585	cac His	ttc Phe	tgt Cys	gga Gly 590	acc Thr	ttg Leu		1776
ata Ile	tcc Ser	cca Pro 595	gag Glu	tgg Trp	gtg Val	ttg Leu	act Thr 600	gct Ala	gcc Ala	cac His	tgc Cys	ttg Leu 605	gag Glu	aag Lys	tcc Ser	1824
cca Pro	agg Arg 610	cct Pro	tca Ser	tcc Ser	tac Tyr	aag Lys 615	gtc Val	atc Ile	ctg Leu	ggt Gly	gca Ala 620	cac His	caa Gln	gaa Glu	gtg Val	1872
aat Asn 625	ctc Leu	gaa Glu	ccg Pro	cat His	gtt Val 630	cag Gln	gaa Glu	ata Ile	gaa Glu	gtg Val 635	tct Ser	agg Arg	ctg Leu	ttc Phe	ttg Leu 640	1920

**FIGURE 3 continued**